

2. In November, 1980, at Westmoreland's mine there was a methane explosion that killed five people. After the explosion and recovery of the bodies, seven seals were installed in the Main East area of the mine to seal off the explosion area from the active workings. The atmosphere in the area behind the seals consists of a high level of methane and a low level of oxygen. This is desirable because an explosive concentration of methane is between five and fifteen percent. That is, if methane is above 15 percent, or below five percent, it is scientifically considered to be nonexplosive. If the oxygen level is kept below sixteen percent, it is also scientifically considered that there will not be enough oxygen for combustion. It is important for the seals to operate effectively to prevent the atmosphere behind them from leaking out into the active workings, since the high methane and low oxygen content would present a serious hazard to persons in the active workings.

3. As a result of the 1980 accident, the mine was designated by MSHA to receive a spot inspection every five days pursuant to § 103 (i) of the Act. In a spot inspection, an inspector takes samples of the atmosphere behind the seals, checks the seals to make sure that they are not leaking or being crushed and that the roof conditions are adequate, and tests to be sure the methane is staying behind the seals.

4. On October 11, 1984, Inspector Ernest Thompson made a spot inspection of Respondent's mine under § 103(i). In the Main East area he took samples of the atmosphere from behind the seals. At the No. 7 seal he observed a large roof fall in the entry, which he described as follows in his testimony at the hearing:

There was cribs at the end of the falls. They had all the weight they could stand. They were crushing. There was eight or ten posts broke in the center of the entry. The top was broke all to pieces, and I could hear the gas hissing out of the top coming through the cracks in the top {Tr. 24} .